

CLAIMS

What is claimed as invention is:

1. A power saving auto-off circuit for a wireless transmitter for an audio source, said

5 auto-off circuit comprising:

a field effect transistor (FET) adapted to pinch off charge carriers when said auto-off circuit is in an "off" state;

a capacitor connected to said FET and adapted to be charged and discharged, and if not discharged will charge to a pre-determined threshold causing said FET to pinch off;

10 a comparator connected to said capacitor and having an open drain output and an input, said input adapted to be dropped in value below a pre-determined threshold limit when presented with an audio peak, and wherein said drop in value causes said capacitor to discharge;

regulator means for producing an output when supplied with power, said regulator means connected to said comparator and enabling said comparator output to discharge said capacitor; and

15 switch means connected to said capacitor and adapted to discharge said capacitor when activated to cause said FET to supply power to said regulator..

2. The power saving auto-off circuit for a wireless transmitter of claim 1 wherein said

20 switch means comprises a momentary contact switch.

3. The power saving auto-off circuit for a wireless transmitter of claim 1 wherein the wireless transmitter includes an audio plug adapted for mating with an output jack of an audio source.

5 4. The power saving auto-off circuit for a wireless transmitter of claim 3 wherein said audio source is selected from the group consisting of a portable stereo radio, cassette player, CD player, and MP3 player.

10 5. The power saving auto-off circuit for a wireless transmitter of claim 1 wherein said capacitor is connected to a battery.

6. The power saving auto-off circuit for a wireless transmitter of claim 5 wherein said capacitor is charged to battery voltage when said circuit is in an "off" state.

15 7. The power saving auto-off circuit for a wireless transmitter of claim 5 wherein said capacitor accumulates charge in a absence of audio pulses.

8. The power saving auto-off circuit for a wireless transmitter of claim 5 wherein said comparator has a polarity, and said polarity is reversed to sense positive going peaks to discharge said capacitor.

9. A method for automatically turning off a wireless transmitter for an audio source when audio pulses cease for a period of time, said method comprising the steps of:

pinching off charge carriers in a field effect transistor (FET) when said circuit is in an "off" state;

5 permitting a capacitor to charge to a pre-determined threshold to cause said FET to pinchoff;

dropping a comparator input in value below a pre-determined threshold limit when presented with an audio peak, wherein said drop in value causes said capacitor to discharge, and maintaining the comparator input in value above the pre-determined threshold

10 limit when audio pulses are not presented for a period of time;

producing an output at a regulator when supplied with power and enabling said comparator output to discharge said capacitor; and

discharging said capacitor via a switch when activated and causing said FET to supply power to said regulator.

15

10. The method for automatically turning off a wireless transmitter for an audio source of claim 9 further including the step of:

providing a momentary contact switch to discharge said capacitor.

20 11. The method for automatically turning off a wireless transmitter for an audio source of claim 9 further including the step of:

providing an audio plug adapted for mating with an output jack of an audio source.

12. The method for automatically turning off a wireless transmitter for an audio source of
5 claim 9 further including the step of:

connecting said capacitor to a battery.

13. The method for automatically turning off a wireless transmitter for an audio source of
claim 12 further including the step of:

10 charging said capacitor to battery voltage when said circuit is in an "off" state.

14. The method for automatically turning off a wireless transmitter for an audio source of
claim 12 further including the step of:

accumulating charge in said capacitor in the absence of audio pulses.

15

15. The method for automatically turning off a wireless transmitter for an audio source of
claim 9 further including the step of:

reversing the polarity of said comparator to sense positive going peaks to
discharge said capacitor.

20